

## AMENDMENTS

### In the Claims:

This listing of claims replaces all prior versions, and listings of claims in the application.

1. (Canceled)

2. (Currently Amended) A The pulse wave measuring apparatus according to claim 1, comprising:

a pressure pulse wave sensor including a plurality of sensor elements, detecting an intra-arterial pressure waveform superficial of a body,

a select unit selecting a selected sensor element located right above an artery out of said plurality of sensor elements based on a sphygmographic waveform detected with said pressure pulse wave sensor,

a sphygmographic waveform value calculation unit calculating a characteristic value from the sphygmographic waveform detected with said selected sensor element,

a distortion degree calculation unit calculating difference in distortion degree of sphygmographic waveforms detected with respective said sensor elements, based on a sphygmographic waveform detected with said selected sensor element and a sphygmographic waveform detected with at least one sensor element located at a predetermined distance from said selected sensor element, and

an amplitude value correction unit correcting an amplitude value using said calculated difference in distortion degree,

wherein said characteristic value includes an AI (Augmentation Index) value.

3. (Previously Presented) The pulse wave measuring apparatus according to claim 2, wherein said difference in distortion degree calculated at said distortion degree calculation unit is a sum of a difference between an AI value calculated from a sphygmographic waveform detected with said selected sensor element and an AI value calculated from a sphygmographic waveform

detected with said at least one sensor element located at a predetermined distance from said selected sensor element at said sphygmographic waveform value calculation unit.

4. (Previously Presented) The pulse wave measuring apparatus according to claim 2, wherein said difference in distortion degree calculated at said distortion degree calculation unit is a sum of squares of a difference between an AI value calculated from a sphygmographic waveform detected with said selected sensor element and an AI value calculated from a sphygmographic waveform detected with said at least one sensor element located at a predetermined distance from said selected sensor element at said sphygmographic waveform value calculation unit.

5. (Currently Amended) A The pulse wave measuring apparatus according to claim 1, comprising:

a pressure pulse wave sensor including a plurality of sensor elements, detecting an intra-arterial pressure waveform superficial of a body,

a select unit selecting a selected sensor element located right above an artery out of said plurality of sensor elements based on a sphygmographic waveform detected with said pressure pulse wave sensor,

a sphygmographic waveform value calculation unit calculating a characteristic value from the sphygmographic waveform detected with said selected sensor element,

a distortion degree calculation unit calculating difference in distortion degree of sphygmographic waveforms detected with respective said sensor elements, based on a sphygmographic waveform detected with said selected sensor element and a sphygmographic waveform detected with at least one sensor element located at a predetermined distance from said selected sensor element, and

an amplitude value correction unit correcting an amplitude value using said calculated difference in distortion degree,

wherein said distortion degree calculation unit normalizes at a same phase a sphygmographic waveform detected with said selected sensor element and a sphygmographic waveform detected with said at least one sensor element located at a predetermined distance from said selected sensor element, and then calculates a ratio of a pulse wave height value of a sphygmographic waveform detected with said selected sensor element to a pulse wave height value of a sphygmographic waveform detected with said at least one sensor element located at a predetermined distance from said selected sensor element at a same phase other than said same phase, as said difference in distortion degree.

6. (Currently Amended) A The pulse wave measuring apparatus according to claim 1, comprising:

a pressure pulse wave sensor including a plurality of sensor elements, detecting an intra-arterial pressure waveform superficial of a body,

a select unit selecting a selected sensor element located right above an artery out of said plurality of sensor elements based on a sphygmographic waveform detected with said pressure pulse wave sensor,

a sphygmographic waveform value calculation unit calculating a characteristic value from the sphygmographic waveform detected with said selected sensor element,

a distortion degree calculation unit calculating difference in distortion degree of sphygmographic waveforms detected with respective said sensor elements, based on a sphygmographic waveform detected with said selected sensor element and a sphygmographic waveform detected with at least one sensor element located at a predetermined distance from said selected sensor element, and

an amplitude value correction unit correcting an amplitude value using said calculated difference in distortion degree,

wherein said distortion degree calculation unit normalizes a sphygmographic waveform detected with said selected sensor element and a sphygmographic waveform detected with said at

least one sensor element located at a predetermined distance from said selected sensor element at a peak time phase, and then calculates a ratio of an area of said normalized sphygmographic waveform detected with said selected sensor element to an area of said normalized sphygmographic waveform detected with said at least one sensor element located at a predetermined distance from said selected sensor element, as said difference in distortion degree.

7. (Currently Amended) A The pulse wave measuring apparatus according to claim 1, comprising:

a pressure pulse wave sensor including a plurality of sensor elements, detecting an intra-arterial pressure waveform superficial of a body,

a select unit selecting a selected sensor element located right above an artery out of said plurality of sensor elements based on a sphygmographic waveform detected with said pressure pulse wave sensor,

a sphygmographic waveform value calculation unit calculating a characteristic value from the sphygmographic waveform detected with said selected sensor element,

a distortion degree calculation unit calculating difference in distortion degree of sphygmographic waveforms detected with respective said sensor elements, based on a sphygmographic waveform detected with said selected sensor element and a sphygmographic waveform detected with at least one sensor element located at a predetermined distance from said selected sensor element, and

an amplitude value correction unit correcting an amplitude value using said calculated difference in distortion degree,

wherein said distortion degree calculation unit normalizes a sphygmographic waveform detected with said selected sensor element and a sphygmographic waveform detected with said at least one sensor element located at a predetermined distance from said selected sensor element at a peak time phase, and then calculates a ratio of a time width of said normalized sphygmographic waveform detected with said selected sensor element crossing a threshold value of a

predetermined ratio to a time width of said normalized sphygmographic waveform detected with said at least one sensor element located at a predetermined distance from said selected sensor element crossing said threshold value, as said difference in distortion degree.

8. (Currently Amended) A The pulse wave measuring apparatus according to claim 1,  
comprising:

a pressure pulse wave sensor including a plurality of sensor elements, detecting an intra-  
arterial pressure waveform superficial of a body,

a select unit selecting a selected sensor element located right above an artery out of said  
plurality of sensor elements based on a sphygmographic waveform detected with said pressure  
pulse wave sensor,

a sphygmographic waveform value calculation unit calculating a characteristic value  
from the sphygmographic waveform detected with said selected sensor element,

a distortion degree calculation unit calculating difference in distortion degree of  
sphygmographic waveforms detected with respective said sensor elements, based on a  
sphygmographic waveform detected with said selected sensor element and a sphygmographic  
waveform detected with at least one sensor element located at a predetermined distance from  
said selected sensor element, and

an amplitude value correction unit correcting an amplitude value using said calculated  
difference in distortion degree,

wherein said distortion degree calculation unit calculates a ratio of area ratios of a sphygmographic waveform detected with said selected sensor element, preceding and succeeding a time phase corresponding to a dicrotic notch in one beat to area ratios of a sphygmographic waveform detected with said at least one sensor element at a predetermined distance from said selected sensor element, preceding and succeeding said time phase, as said difference in distortion degree.

9. (Currently Amended) A The pulse wave measuring apparatus according to claim 1,

comprising:

a pressure pulse wave sensor including a plurality of sensor elements, detecting an intra-arterial pressure waveform superficial of a body,

a select unit selecting a selected sensor element located right above an artery out of said plurality of sensor elements based on a sphygmographic waveform detected with said pressure pulse wave sensor,

a sphygmographic waveform value calculation unit calculating a characteristic value from the sphygmographic waveform detected with said selected sensor element,

a distortion degree calculation unit calculating difference in distortion degree of sphygmographic waveforms detected with respective said sensor elements, based on a sphygmographic waveform detected with said selected sensor element and a sphygmographic waveform detected with at least one sensor element located at a predetermined distance from said selected sensor element, and

an amplitude value correction unit correcting an amplitude value using said calculated difference in distortion degree,

wherein said distortion degree calculation unit normalizes a sphygmographic waveform detected with said selected sensor element and a sphygmographic waveform detected with said at least one sensor element located at a predetermined distance from said selected sensor element at an area of a same beat, and then calculates a ratio of a maximum pulse wave height value of said normalized sphygmographic waveform detected with said selected sensor element to a maximum pulse wave height value of said normalized sphygmographic waveform detected with said at least one sensor element located at a predetermined distance from said selected element, as said difference in distortion degree.

10. (Currently Amended) A ~~The~~ pulse wave measuring apparatus according to claim 1, comprising:

a pressure pulse wave sensor including a plurality of sensor elements, detecting an intra-arterial pressure waveform superficial of a body,

a select unit selecting a selected sensor element located right above an artery out of said plurality of sensor elements based on a sphygmographic waveform detected with said pressure pulse wave sensor,

a sphygmographic waveform value calculation unit calculating a characteristic value from the sphygmographic waveform detected with said selected sensor element,

a distortion degree calculation unit calculating difference in distortion degree of sphygmographic waveforms detected with respective said sensor elements, based on a sphygmographic waveform detected with said selected sensor element and a sphygmographic waveform detected with at least one sensor element located at a predetermined distance from said selected sensor element, and

an amplitude value correction unit correcting an amplitude value using said calculated difference in distortion degree,

wherein said distortion degree calculation unit calculates a ratio of an amplitude of a sphygmographic waveform detected with said selected sensor element to an amplitude of a sphygmographic waveform detected with said at least one sensor element located at a predetermined distance from said selected element, as said difference in distortion degree.

11. (Canceled)